

PV Type Crystal Oscillator

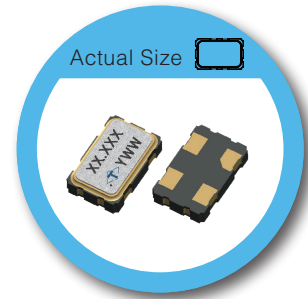
5.0 x 3.2 mm SMD Crystal Oscillator

FEATURE

- Typical 5.0 x 3.2 x 1.2 mm ceramic SMD package
- Output frequency up to 200MHz
- Tri-State Enable/Disable

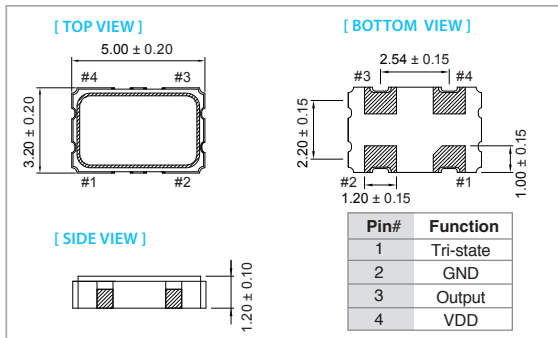
TYPICAL APPLICATION

- xDSL, WLAN, Fiber/10G-bit Ethernet
- Notebook, PDA
- PC main board, VGA card

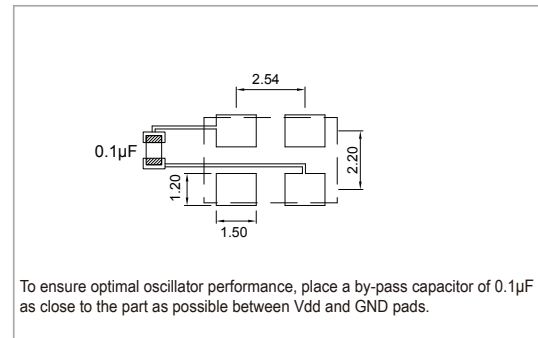


RoHS Compliant

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		Unit	
	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation (V_{DD})	V _{DD} -10%	V _{DD} +10%	V _{DD} -10%	V _{DD} +10%	V _{DD} -10%	V _{DD} +10%	V	
Frequency Range	1	200	1	166	1	110	MHz	
V_{DD} Sensitivity (±10%)	-2	2	-2	2	-2	2	ppm	
Supply Current	2.048MHz ≤ F _o ≤ 110MHz	-	20	-	15	-	10	mA
	110MHz ≤ F _o ≤ 166MHz	-	25	-	20	-	-	
	166MHz ≤ F _o ≤ 200MHz	-	30	-	-	-	-	
Duty Cycle	40	60	40	60	40	60	%	
Output Level (CMOS)	Output High (Logic"1")	2.97	-	2.25	-	1.62	-	V
	Output Low (Logic"0")	-	0.33	-	0.25	-	0.18	
Transition Time : Rise/Fall Time⁺	2.048MHz ≤ F _o ≤ 200MHz	-	5	-	5	-	5	nSec
Start Time		-	8	-	8	-	8	mSec
Tri-State (Input to Pin 1)	Enable (High Voltage or Floating)	2.31	-	1.75	-	1.26	-	V
	Disable (Low Voltage or GND)	-	0.99	-	0.75	-	0.54	
Period Jitter (Pk-Pk)	Specific Frequency"	-	40	-	40	-	40	pSec
	Others	-	200	-	200	-	200	
Standby Current		-	15	-	15	-	15	µA
Aging (@ 25°C, 1st Year)		-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-50	+125	-50	+125	-50	+125	°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

FREQ. STABILITY vs. TEMP. RANGE

°C	ppm		
	±20	±25	±50
-10~+60	○	○	○
-20~+70	△	○	○
-40~+85	△	○	○

*O: Available △: Conditional X: Not available

*Inclusive of calibration @ 25°C, operating temperature range, input Voltage variation, load variation, aging (1st year), shock, and vibration

Note: not all combination of options are available. Other specifications may be available upon request.